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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,013	07/15/2003	Phillip J. Hawkins	NSD 2002-003	8606

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EXAMINER

GREENHUT, CHARLES N

ART UNIT PAPER NUMBER

3652

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/620,013	HAWKINS ET AL.	
	Examiner	Art Unit	
	Charles N. Greenhut	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

I. Claim Rejections - 35 USC § 112

The following is a quotation from the relevant paragraphs of 35 U.S.C. 112:

(2) The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 5 and 11, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1.1. Claim 5 recites the limitation, "said member" in line 4. There is insufficient antecedent basis for this limitation in the claim.

1.2. Claim 11 recites the limitation, "the more than one independently operated manipulator" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. While claim 10 recites the limitation, "the manipulator is sized to permit more than one independently operated manipulator" applicant never makes a positive recitation of more than one manipulator being required by the claim. Any further limitation of the manipulator that isn't related to its size is indefinite because only the size of the manipulator and not the more than one manipulator is actually included within the claim.

II. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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1. Claim(s) 1-6 and 14 is/are rejected under 35 U.S.C. 102(b) as being anticipated by GUGEL (US 4,438,805).

1.1. With respect to claim 1, GUGEL discloses a base member (8a/8b), a holder (6), the base member having a gripper (8), a block member (11) for linear and rotary movement, and a foot member having a gripper (8c/8d).

1.2. With respect to claim 2, GUGEL additionally discloses two directions of linear travel (Fig. 2 shows X & Y).

1.3. With respect to claim 3, GUGEL additionally discloses horizontal and vertical directions ((8a/8b) can be moved in Z while block (11) remains stationary in Z).

1.4. With respect to claim 4, GUGEL additionally discloses the gripper exerting a force in a direction.

1.5. With respect to claim 5, GUGEL additionally discloses a stop.

1.6. With respect to claim 6, GUGEL additionally discloses the foot having two spaced grippers.

1.7. With respect to claim 14, GUGEL additionally discloses a pneumatic drive and a motorized drive.

III. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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1. Claim(s) 7 and 10-11 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over GUGEL in view of SHUNICHI (US 4,070,561 A).

1.1. With respect to claim 7, GUGEL fails to teach each gripper having a limit switch functioning to verify an acceptable degree of insertion. SHUNICHI teaches each gripper having a limit switch functioning to verify an acceptable degree of insertion (Col. 10 Li. 4 et seq.). It would have been obvious to one of ordinary skill in the art to modify GUGEL with the limit switches of SHUNICHI in order to provide feedback regarding the location of the grippers.

1.2. With respect to claim 10-11, GUGEL fails to teach the manipulator sized to permit more than one independently operable manipulator that is designed to be operated at the same time as another to be suspended from an underside of a semicircular portion of an inlet or outlet section of a hemispherical channel head of a steam generator. SHUNICHI teaches the manipulator sized to permit more than one independently operable manipulator that is designed to be operated at the same time as another to be suspended from an underside of a semicircular portion of an inlet or outlet section of a hemispherical channel head of a steam generator. It would have been obvious to one of ordinary skill in the art to modify SHUNICHI with the sizing of the manipulator of SHUNICHI in order to allow for multiple manipulators to function simultaneously, thereby decreasing maintenance time.

2. Claim(s) 8-9 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over GUGEL in view of GEBELIN (US 4,004,698).

2.1. With respect to claim 8, GUGEL additionally teaches the grippers having insertion fingers biased against an interior of the tube. GUGEL defers to German application publication DE-2552341-A (corresponding to US patent 4,004,698 to GEBELIN) for a detailed description of the grippers. GEBELIN teaches an internal piston that forces bearings to move up a tapered raceway to force the fingers out against the interior of the tube. It would have been obvious to one of ordinary skill in the art to modify GUGEL with the piston of GEBELIN since the combination is explicitly taught in GUGEL.

2.2. With respect to claim 9, GUGEL defers to German application publication DE-2552341-A (corresponding to US patent 4,004,698 to GEBELIN) for a detailed description of the grippers. GEBELIN teaches the fingers having a spring bias. It would have been obvious to one of ordinary skill in the art to modify GUGEL with the spring biased fingers of GEBELIN since the combination is explicitly taught in GUGEL.

3. Claim(s) 12-13 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over GUGEL in view of WARD (US 3,913,452).

3.1. With respect to claim 12, GUGEL fails to teach the manipulator is approximately 30 pounds or less. WARD teaches manipulator is approximately 30 pounds or less (Col. 9). It would have been obvious to one of ordinary skill in the art to modify GUGEL with the light weight of WARD in order to minimize the gripping force required to suspend the manipulator from the tubes.

3.2. With respect to claim 13, GUGEL is silent regarding the load capacity of the apparatus. WARD teaches two or more fingers, each having a load capacity of fifty pounds (Col. 9 Li. 16) and therefore teaches supporting a payload as much as seventy pounds. It would have been obvious to one of ordinary skill in the art to modify GUGEL with the load capacity of WARD in order to support equipment commonly used to service steam generator tube sheets.

IV. Response to Applicant's Arguments

Applicant's arguments entered 1/25/06 have been fully considered.

1. Applicant argues that claims 3-5, 7, 11, and 13, as amended, overcome the rejections under 35 USC 112 2nd paragraph set forth in the previous office action. This argument is persuasive in part. Claims 3-4, 7, and 13, as amended overcome the rejections under 35 USC 112 2nd paragraph set forth in the previous office action. The rejections of claims 5 and 11 under 35 USC 112 2nd paragraph set forth in the previous office action remain in effect as indicated above.
2. Applicant argues that the term "pneumatic and/or hydraulic" in claim 14 does not render the claim indefinite because that term should be interpreted to mean either pneumatic, hydraulic, or both. This argument is persuasive. The rejection of claim 14 under 35 USC 112 2nd paragraph is therefore withdrawn.
3. With respect to claim 1, applicant argues that GUGEL does not anticipate claim 1 because GUGEL does not disclose a "base member" or a "foot member" as required by claim 1. This argument is not persuasive. Applicant states that GUGEL does not disclose a base member (8a/8b) but provides no support for why (8a/8b) can not properly be considered a "base

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member” as defined by the claim, within the broadest reasonable interpretation of that term. Similarly applicant does not present any argument regarding why (8c/8d) can not properly be considered a “foot member” as defined by the claim, within the broadest reasonable interpretation of that term. Applicant argues that boom (7) nor body (9) can properly constitute a base member. This argument is not addressed since examiner made no such assertion.

4. With respect to claim 1, applicant further argues GUGEL does not anticipate claim 1 because GUGEL does not disclose a block member connected to the base for linear movement and rotation relative thereto. This argument is not persuasive. Support (11) of GUGEL could properly be considered a block member connected to the base for linear movement and rotation relative thereto. The language of applicants claim does not require the block member to be, for example, rotably attached to the base member, merely that it is connected to the base member *for* linear movement (e.g., in x) and rotation (e.g., in ϕ) relative to the base member. Examiner acknowledges the differences between the applicants preferred embodiment and the preferred embodiment disclosed in GUGEL, however, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

5. With respect to claim 2, applicant argues GUGEL does not anticipate claim 2 because GUGEL does not disclose two directions of linear motion. This argument is not persuasive. Firstly, the term “linear” does not necessarily exclude curvilinear. Secondly, “a direction of linear travel” does not preclude traversing an arcuate path because any two points on that path define a “direction of linear travel.” Furthermore, there is additionally travel in Z .

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Examiner acknowledges the differences between the applicants preferred embodiment and the preferred embodiment disclosed in GUGEL, however, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

6. With respect to claim 3, applicant argues GUGEL does not anticipate claim 3 because GUGEL does not disclose vertical travel. This argument is not persuasive. (8a/8b) clearly move in Z. As indicated above, applicant has provided no support for why these elements can not properly constitute a "base member." Examiner acknowledges the differences between the applicants preferred embodiment and the preferred embodiment disclosed in GUGEL, however, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

7. With respect to claim 4, applicant argues GUGEL does not anticipate claim 4, as amended, because GUGEL does not disclose a force in the direction to draw a member toward the tube. This argument is not persuasive. GUGEL inherently discloses such a force since without the friction force in that direction the GUGEL apparatus would fall under the influence of gravity. Examiner acknowledges the differences between the applicants preferred embodiment and the preferred embodiment disclosed in GUGEL, however, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

8. With respect to claim 5, applicant argues GUGEL does not anticipate claim 5, as amended, because GUGEL does not disclose a standoff pin. This argument is not persuasive. A standoff pin is shown at (8.2). Examiner acknowledges the differences between the applicants preferred embodiment and the preferred embodiment disclosed in GUGEL,

however, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

9. With respect to claim 6, applicant argues GUGEL does not anticipate claim 6 because GUGEL does not disclose two spaced grippers. This argument is not persuasive. The free ends of (8a/8b) and (8c/8d) have two spaced grippers.
10. With respect to claim 7, applicant argues that GUGEL does not anticipate claim 7, as amended, because GUGEL does not disclose each gripper having a limit switch functioning to verify an acceptable degree of insertion. This argument is persuasive, however, upon further consideration, a new ground(s) of rejection is made over GUGEL in view of SHUNICHI as discussed above. The new ground of rejection was necessitated by applicants amendment. Though the amendment addressed 112 2nd paragraph issues, it also changed the scope of the claim to define over the prior art.
11. With respect to claim 8, applicant argues that GEBELIN does not mention bearings. This argument is not persuasive. The term “bearing” is generally used to denote any object or surface that provides support and does not necessarily require a ball bearing as applicant suggests. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.
12. Applicant argues that claims 10 and 13, as amended, distinguish over the GERKY and GUGEL. This argument is persuasive, however, upon further consideration a new ground(s) of rejection is made, as discussed above.

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13. With respect to claims 9 and 12-14, applicant argues these claims are allowable for the same reasons presented with respect to the parent claims. This argument is not persuasive since applicants arguments with respect to the parent claims were not persuasive.

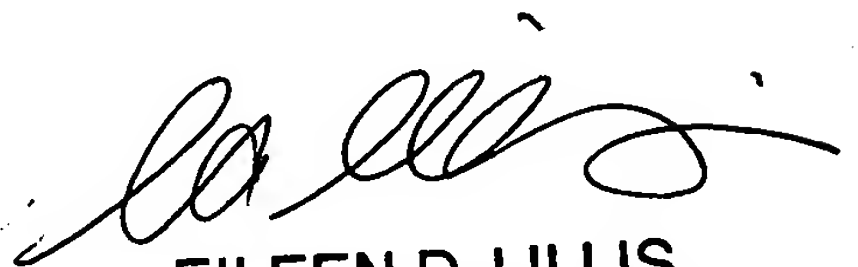
V. Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
2. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Greenhut whose telephone number is (571) 272-1517. The examiner can normally be reached on 7:30am - 4:00pm EST.

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5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.
6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CG



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